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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,703	01/26/2001	Brent Delzer	S-50063P1	6804

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EXAMINER

IBRAHIM, MEDINA AHMED

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 03/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,703

Applicant(s)

DELZER, BRENT

Examiner

Medina Ibrahim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claims 1-42 are pending and are under examination.

Information Disclosure Statement

No IDS has been filed with the instant application.

Drawings

No drawings have been filed with the instant application.

Errors

The application should be reviewed for errors. Errors appear, for example, in claim 10, line 2, where “gluphosinate” should be ---glyphosinate.

Objections

The specification is objected to because of the following informalities: for example, page 22, line 6, cites hyperlink which is directed to an internet address. The use of hyperlinks is not permitted under USPTO current policy because the contents of such links are subject to a change. Therefore, New Matter might be a constant problem.

Claims 1-2, 18, and 40 are objected to for failing to recite complete Accession information. The ATCC Accession No. must be filled in as appropriate.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 6-17, 20-22, 26-28, 32-34, 37-39, 41-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6 and 15, "a plant" before "according" should be changed to ---the plant---, for proper dependency.

In claims 7-14, 17, 20-22, 26-28, 32-34, 38-39, and 41, "A" should be changed to ---The-- for proper dependency.

In claim 16, "a maize plant" should be changed to ---the maize plant---; "plants" before the 2nd recitation of "according" should be changed to ---the plant---.

Claim 20, 26, and 32 are indefinite because it is unclear how different would the plants are. Would they be "genetically different", or otherwise? Dependent claims 23, 29, and 35 are included in the rejection.

In claims 21-22 and 27-28, ---the--- should be inserted before "inbred", for proper dependency. In claim 28, "claim 27" should be replaced with --claim 25--- for proper antecedence.

Claims 37 and 40 are indefinite as it is unclear what the method is for (incomplete preamble). Claim 37 does not recite the steps for identifying a plant with decreased vigor. No steps are also recited for part (d). Dependent claims 38-39 and 41 are included in the rejection.

In claim 38, "a" before "plant" should be changed to ---the---.

In claim 42, "NP2174-derived maize plant" renders the claims indefinite as it is unclear what is being retained in the derivative or the derived plant. The claim is also indefinite for the

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recitation of “acceptable to good grain quality”, “average.....” “good”, “relative maturity”, “improved stalk”, which are relative terms lacking a comparative basis. Also, the metes and bounds of “adapted” are unclear.

Written Description

Claim 42 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed invention lacks written description under current written description guidelines. The claim is drawn to NP2174-derived maize plants of an unknown generations which are only known to have one ancestor of NP2174 maize plant. The specification only discloses a single inbred maize line, NP2174 with specified characteristics. The claim does not recite that the plants retain all the morphological and physiological characteristics of the NP2174 maize plants. There are no relevant identifying characteristics which would allow one skilled in the art to predictably determine what will be the physiological and morphological characteristics of NP2174-derived maize plants. The only characteristics disclosed for the plant are the expression of the combination of at least two traits which are described with relative terms that lack comparative basis (see the rejection under 35 USC, 112, 2nd paragraph).

The Federal Circuit court stated that a written description of an invention “requires a precise definition, such as by structure, formula [or] chemical name, of the claimed subject matter sufficient to distinguish it from other material”. *University of California v. Eli Lilly and Co.*, 43

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USPQ2d 1398 (Fed. Cir. 1997). The court also stated that “naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of is not a description of that material”. *Id.* Further, the court held that to adequately describe a claimed genus, Applicant must describe a representative number of the species of the claimed genus, and that one of skill in the art should be able to “visualize or recognize the identity of members of the genus”. *Id.* In the instant case, the disclosure of a single maize inbred line, NP2174, does not provide an adequate written description for the claimed genus, NP2174-derived maize plants, wherein only one ancestor of the plant is known to be a NP2174 maize plant, and the rest of the ancestors are unknown. Accordingly, the claimed invention lacks adequate written description as required under the current written description guidelines (See Written Description Requirement published in Federal Registry/Vol. 66, No. 4/Friday, January 5, 2001/Notices; P. 1099-1111).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 42 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mies et al (US Patent 5, 792, 906(A)) .

Mies teaches an inbred maize line designated as NP2034 with agronomic traits of high yield, good early season vigor, good quality grain, good stalk quality, and adaptation to northcentral region, (see columns 5-9). The claimed maize plant differs from the prior art corn plant in that it is derived or has “at least one ancestor” of the NP2174 maize plant. There are insufficient specific characteristics that distinguishes “A NP2174-derived corn plant wherein at least one ancestor is the NP2174 maize plant” from the prior art maize plant. Also, since the claim languages “acceptable to good” grain quality”, “average.....” “good”, “relative maturity”, “improved stalk” are relative terms lacking a comparative basis (as indicated in 112, 2nd paragraph rejection), the claimed agronomic traits are considered to be identical to those of the prior art. Therefore, the claimed invention is anticipated by or, in the alternative, is obvious over the prior art. See *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985), which teaches that a product- by- process claim may be properly rejected over prior art teaching the same product produced by a different process, if the process of making the product fails to distinguish the two products.

Claim Rejections - 35 USC § 103

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2. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mies et al (US Patent 5, 792, 906, filed January 1997).

Mies et al teach an inbred maize line which is adapted to northcentral region and express traits of leaf sheath pubescence, anthocyanin in the brace roots, distinct kernel rows, resistance to Corn Leaf Blight diseases, insect resistance, resistance to root lodging, high yield, and strong stalk (see columns 3-7). Plants and seeds derived from the inbred line, and method of cell and tissue cultures are also disclosed

Mies et al do not teach a maize plant with herbicide tolerance.

It would have been obvious to an ordinary plant breeder to utilize the maize inbred taught by Mies et al, and to modify that inbred by crossing with other maize plants to introduce desired agronomic traits, as suggested by Mies et al. Thus, the claimed invention as whole was clearly *prima facie* obvious.

No claim is allowed.

Papers relating to this application may be submitted to Technology Sector 1 by facsimile transmission. Papers should be faxed to Crystal Mall 1, Art Unit 1638, using fax number (703) 308-4242. All Technology Sector 1 fax machines are available to receive transmissions 24 hrs/day, 7 days/wk. Please note that the faxing of such papers must conform with the Notice published in the Official Gazette, 1096 OG 30, (November 15, 1989).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (703) 306-5822. The Examiner can normally be reached Monday -Tuesday from 8:00 AM to 5:00 PM and Wednesday-Thursday from 9:00AM to 3:00PM

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218.

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Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

March 21, 2002

mai

A handwritten signature in black ink, appearing to read "Amy Nelson", with a long horizontal flourish extending to the right.

**AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600**